Third United Nations International Conference on the Peaceful Uses of Atomic Energy

A/CONF.28/A/745
INDIA
February 1964
Original: ENGLISH

Confidential until official release during Conference

Abstract

TARAPUR ATOMIC POWER STATION

M.R. Srinivasan
Tarapur Atomic Power Project

This paper gives an account of the Tarapur Atomic Power Project. The station is located about 62 miles north of Bombay and will feed power into the power systems of Western India serving industrial areas around Bombay and in Gujarat. The reasons for adopting the dual reactor design and the choice of the output of the station are dealt with. The choice of the reactor type and the constructor was made from amongst seven proposals received from four countries submitted in response to a global invitation to bid which included detailed performance requirements and also standards for design and workmanship. The station will consist of two boiling water reactors using forced circulation with internal steam separation and pressure suppression containment is adopted. The paper discusses the philosophy of the layout and the basis of design of the systems and components and how this has been influenced by conditions at the site, characteristics of the power system into which the station will be feeding power and the fact that two identical reactors are housed together. The paper also deals with the conservatism in design and the potential for exploiting this conservatism. The reasons that led to the choice of the core design which consists of slightly enriched uranium oxide pellets clad in Zircaloy-2 arranged in a 6 x 6 matrix is dealt with. Information about the cost of the station and power costs is also presented.